OF STATE ON THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) and (b) A research project on "Micropropagation of disease free mandarine orange budng by shoot tip grafting technique" was sanctioned by the Department of Biotechnology in March, 1992 at Bidhan Chandra Krishi Viswavidyalya, Kalyani and was completed in March, 1996. The main objective was Micropropagation and mass produciton of disease free budded seedings of mandarine and field testing of the micropropagated plansts after screening of disease free plansts. The project has been monitored regularly through presentation before the expert committee and task force and progress reports.

A protocol has been developed for producing disease free plants of Darjeeling Orange by shoot tip grafting on different root stocks (sour-orange, rough lime, Rangpur lime). This is a unique technology and provides scope to produce disease free mother groove to supply disease free bud stocks to the citrus growers. A mocropropagated plant takes two years to fruit, while a budded grafted plant takes four years. 30 double grafted plansts were successfully produced which are now in the fruiting stage. Adequate supply of root stock is another limiting factor for citrus cultivation. A protocol has been developed for producing tissue culture raised plants of *Citrus* sp. and successful hardening for field plantation.

(c) and (d) Studies on micropropagation and micro-grafting of Khasi Mandarine orange have also been supported at ICAR Research Complex, Barapani, Shillong. Studies on Nagpur Mandarine are also being conducted at National Research Centre for Citrus, Nagpur under ICAR support, protocol standardisation is in progress for double grafting and hardening in greenhouse. The Department has now supported demonstration trails for field testing of the Darjeeling Orange plants.

Reaction to Technological Breakthrough by NASA

587. PROF. RAM KAPSE: Will the Minister of SCIENCE AND TECHNOLOGY be please to state:

(a) whether Government are aware that NASA (USA) has developed a Technology in aeronautics and built and aeroplane PATH FINDER using Solar Energy for its flight;

(b) if so, the reaction of Government thereto; and

(c) if not, whether Government will call for the requisite information from NASA?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MEMBER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) Yes, Sir.

(b) Indian scientists are closely keeping track of the results of the scientific investigations being carried out by the Mars Mission on the technology elements and physical/chemical properties of the Martain surface/atmosphere.

(c) The results of the investigations being carried out through this Mission are regularly announced and published by NASA.

इस्पात विकास निधि से ऋण

588. **श्री अनन्तराय देवशंकर दवे** : क्या **इस्पात** मंत्री यह बताने की कृपा करेंगे कि **:**

(क) क्या गत कुछ वर्षो के दौरान इस्पात का उत्पादन करने वाले प्रमुख औधोगिक घरानों को इस्पात निधि से ऋण उपलब्ध कराए गए थे;

(ख) यदि हां तो अक्टूबर 1996 के अन्त तक बकाया ऋणों का ब्यौरा क्या है;

(ग) क्या सरकार ने ऋण की अदायगी हेतु कोई समय-सीमा निर्धारित की है;

(घ) यदि हां, तो तत्संबंधी ब्यौरा क्या है; और

0s(ड) सरकार द्वारा गत तीन वर्षो के दौरान इस्पात के क्षेत्र में अनुसंधान और विकास हेतु इस्पात विकास निधि से कितनी अनुदान राशि तथ ऋण उपलब्ध कराया गया ?

इस्पात मंत्री तथा खान मंत्री (श्री बीरेन्द्र प्रसाद वैश्य) : (क) जी, हां।

(ख) 31 अक्टूबर, 1996 की स्थिति के अनुसार बकाया ऋण निम्नानुसार है;

	(करोड़ रुपए)
सेल	4676.91
टिस्टो	884.20
इस्को	44.68
कुल	5.605.79

(ग) और (घ) इस्पात विकास निधि प्रबंधन समिति के निर्णय के अनुसार ऋण की अदायगी ऋण निर्मुक्त/विपरित किए जाने की तिथि से 12 वर्ष की अवधि में करनी होती है।

(ड) इस्पात क्षेत्र में अनुसंधान एवं विकास हेतु इस्पात विकास निधि से पिछले तीन वर्षो के दौरान निर्मुक्त की गई धनराशि निम्नानुसार है;

	(करोड़ रुपए)
1994-95	- शून्य
1995-96	- 0.51
1996-97	- 0.20

Plant-wise Financial Performance of Sail

589. DR. B.B. DUTTA: Will the Minister of STEEL be please to state:

(a) the financial performance of the Steel Authority of India during 1996-97, plant-wise;

(b) whether the profitability of the SAIL has declined during the current year as compared to last year;

(c) if so, the reasons therefor; and

(d) the steps taken or proposed to be taken to improve the performance of the SAIL?

THE MINISTER OF STEEL AND MINISTER OF MINES (SHRI BIRENDRA PRASAD BAISHYA): (a) The plant-wise financial performance of SAIL during 1996-97 is as under:

(Rs. in Crores)

PLANT	PROFIT/LOSS)*
Bhilai Steel Plant	688
Durgapur Steel Plant	(-) 233
Rourkela Steel Plant	(-) 315)
Bokaro Steel Plant	361
Alloy Steels Plant	(") 67
Salem Steel Plant	(-)38

* Subject to CAG Audit.

(b) and (c) SAIL consolidates its financial results on half yearly and annual basis. Hence, profit position will be know after expiry of six months/year of the current financial year.

(d) SAIL is taking steps on a continuous basis to improve its performance, which include. modernisation and technological upgradation of its plants, improving techno-economic factors i.e. reduction in coke rate, energy consumption, metallic input, improvement in yield, extensive customer contact, market oriented product-mix, improvement in quality,

long term relationship with customers, leadership in service and customer satisfaction, strict control and monitoring of operating costs, higher productivity and greater autonomy to field officers, etc.

इस्पात संयंत्र का आधुनिकीकरण

590. **श्री रामगोपाल यादव** :
श्री ईश दत्त यादव :

क्या **इस्पात** मंत्री यह बताने की कृपा करेंगे कि **:**

(क) क्या सरकार ने कुछ इस्पात संयंत्रों का आधुनिकीकरण किया है, यदि हां, तो इसके क्या कारण है;